Opening Questions

Read and answer each question.

1. Why is DDT harmful? What effect of DDT (DDE) is linked to the slow decline of birds of prey in the United States during the late 1960s and early 1970s?

2. Does DDE accumulate in all species equally? Why not? What type of species is most likely to accumulate large amounts of DDE due to biomagnification?

3. When was DDT banned?

Presentation Questions

Fill in the questions based on information in the presentation.

1. From where will we get data to investigate whether the DDT ban was effective in reducing DDE concentrations in wildlife?

2. Who created this database? Why might they be interested in contaminants?

3. Where did the data in the database come from? Do you trust this source of data to be fairly non-biased? Why or why not?

4. What type of species should we investigate? Why?

5. Do all tertiary consumers have the same likelihood of accumulating high concentrations of DDE?

6. Can we combine species or do we need to pick one? Why?

7. What other factor effects our choice of species since we are getting our data from an existing database?

8. We have data on DDE concentrations in osprey eggs collected from various locations in the U.S. between 1968 and 1991. What question do we want to ask? What is our hypothesis?

9. With this hypothesis, how have we specifically defined our investigation?

   Species =_____

   Matrix (body part) = _____

   Location =_____

   Harmful concentration of DDE =_____

   Time frame = _____

10. What do we expect a graph of DDE concentrations in osprey eggs collected in the U.S. by year to look like if the hypothesis is supported?

11. What do we expect a graph year to look like if the hypothesis is rejected?

12. What steps need to be taken to transform the individual records into DDE averages that can be graphed?

13. How is the average DDE concentration for a group calculated?

14. What did the graph of the Osprey data look like? What was the highest average concentration of DDE found in Osprey eggs and during what time period was this high found?

15. Do we reject our hypothesis? What is our conclusion?

16. How long did it take for DDE to decrease below a harmful concentration (< 3 ug/g ww)?

17. Was the DDT ban effective in decreasing DDE concentrations in wildlife in the United States?